What is claimed is:

1. A method for testing complementation of nucleic acid fragment which comprises the steps of:

bringing a sample nucleic acid complex which comprises a double-stranded nucleic acid structure and a labeled intercalator intercalated therein, in which the double-stranded nucleic acid structure has been produced by contact of a sample nucleic acid fragment with a probe molecule fixed to a solid carrier in the presence of an aqueous medium, the probe molecule being selected from the group consisting of a nucleic acid or a nucleic acid derivative, into contact with an aqueous medium;

applying variation of physical or chemical surrounding conditions to the latter aqueous medium, to cause disengagement of the sample nucleic acid fragment and the intercalator from the nucleic acid complex and simultaneously measuring decrease of quantity of the label on the solid carrier, so that stability of the sample nucleic acid fragment of the complex is determined; and

comparing the stability determined above with reference stability data which are separately obtained by determination of stability of a reference nucleic acid fragment in a reference nucleic acid complex comprising a reference double-stranded nucleic acid structure and the labeled intercalator intercalated therein in which the reference double-stranded nucleic acid structure is produced by contact of the reference nucleic acid fragment with the probe molecule, the reference nucleic acid fragment being determined in complementation thereof with the probe molecule.

2. The method of claim 1, wherein the variation of physical or chemical surrounding conditions is variation of a temperature of the aqueous medium.

3. The method of claim 1, wherein the variation of physical or chemical surrounding conditions is variation of electrophoretic potential.

4. The method of claim 1, wherein the variation of physical or chemical surrounding conditions is variation of ionic strength in the aqueous medium.

5. The method of claim 1, wherein the labeled intercalator is an intercalator having an electroconductive label.

6. The method of claim 1, wherein the labeled intercalator is an intercalator having a fluorescent label.

7. The method of claim 1, wherein the probe molecule contains a chain of a base sequence comprising at least three predetermined base units in series.

8. The method of claim 7, wherein the reference nucleic acid fragment contains a chain of a base sequence comprising at least three base units in series which are fully complementary to the chain of the probe molecule.

9. The method of claim 1, wherein the reference stability data are obtained by a step which is identical to the first step of claim 1, except for replacing the sample nucleic acid complex with the reference nucleic acid complex.

10. The method of claim 1, wherein the probe molecule is selected from the group consisting of oligonucleotide, polynucleotide, and peptide nucleic acid.

11. A method for testing complementation of nucleic acid fragment which comprises the steps of:

bringing a sample nucleic acid fragment into contact with a probe molecule fixed to a solid carrier in the presence of an aqueous medium and a labeled intercalator to produce on the solid carrier a sample nucleic acid complex comprising a double-stranded nucleic acid structure and the labeled intercalator intercalated therein, the probe molecule being selected from the group consisting of a nucleic acid or a nucleic acid derivative, while applying variation of physical or chemical surrounding conditions to the aqueous medium, so that stability of the sample nucleic acid fragment in the complex is determined; and

comparing the stability determined above with reference stability data which are separately obtained by determination of stability of a reference nucleic acid fragment in a reference nucleic acid complex comprising a reference double-stranded nucleic acid structure and the labeled intercalator intercalated therein in which the reference double-stranded nucleic acid structure is produced by contact of the reference nucleic acid fragment with the probe molecule, the reference nucleic acid fragment being determined in complementation thereof with the probe molecule.

12. The method of claim 11, wherein the variation of physical or chemical surrounding conditions is variation of a temperature of the aqueous medium.

13. The method of claim 11, wherein the variation of physical or chemical surrounding conditions is variation of electrophoretic potential.

14. The method of claim 11, wherein the variation of physical or chemical surrounding conditions is varia-

tion of ionic strength in the aqueous medium.

15. The method of claim 11, wherein the labeled intercalator is an intercalator having an electroconductive label.

16. The method of claim 11, wherein the labeled intercalator is an intercalator having a fluorescent label.

17. The method of claim 11, wherein the probe molecule contains a chain of a base sequence comprising at least three predetermined base units in series.

18. The method of claim 17, wherein the reference nucleic acid fragment contains a chain of a base sequence comprising at least three base units in series which are fully complementary to the chain of the probe molecule.

19. The method of claim 11, wherein the reference stability data are obtained by a step which is identical to the first step of claim 11, except for replacing the sample nucleic acid complex with the reference nucleic acid complex.

20. The method of claim 11, wherein the probe molecule is selected from the group consisting of oligonucleotide, polynucleotide, and peptide nucleic acid.